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## PATENT ABSTRACTS OF JAPAN

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MURATA KENJI**(54)**STARTING METHOD FOR POWER  
GENERATING SYSTEM WITH MOLTEN  
TYPE FUEL CELL**

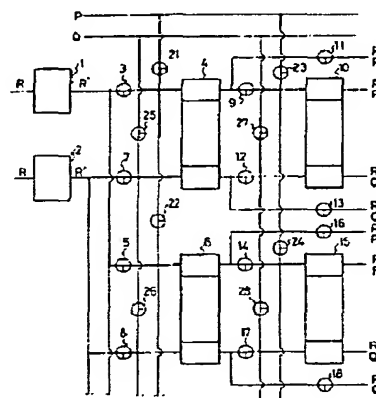
## (57)Abstract:

**PURPOSE:** To make it possible to raise temperature with a small energy, by feeding a heated gas from preheaters to a specific fuel cell lamination to raise the temperature and to start the operation, and then raising the temperature and starting the operation of the other fuel cell laminations by using the exhaust gas from the first cell lamination.

**CONSTITUTION:** First, valves 3, 7, 11, and 13 are opened while the other valves are all closed. A heated gas is fed from gas preheaters 1 and 2 to the cathodes and anodes of a fuel cell lamination 4 to raise the temperature. Then, the lamination 4 is connected to a fuel gas P and an oxidizing agent gas Q by converting valves to start the operation. Furthermore, the gas preheaters 1 and 2 are connected to another lamination 6 to raise its temperature. After that, by the exhaust gas of the lamination 4, a lamination 10 in the next stage is heated and started,

and a lamination 15 is also heated and started by the exhaust gas of the lamination 6 in a same manner. Therefore, as well as a uniformed temperature rising can be realized by using gases, the temperatures of plural fuel cell laminations can be raised by a small energy, and the system can be started efficiently.

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TIN: STARTING METHOD FOR POWER GENERATING SYSTEM WITH MOLTEN TYPE FUEL CELL  
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AI: 19851213 JP 60-280439  
OI: 19870623  
AB: PURPOSE: To make it possible to raise temperature with a small energy, by feeding a heated gas from preheaters to a specific fuel cell lamination to raise the temperature and to start the operation, and then raising the temperature and starting the operation of the other fuel cell laminations by using the exhaust gas from the first cell lamination. CONSTITUTION: First, valves 3, 7, 11, and 13 are opened while the other valves are all closed. A heated gas is fed from gas preheaters 1 and 2 to the cathodes and anodes of a fuel cell lamination 4 to raise the temperature. Then, the lamination 4 is connected to a fuel gas P and an oxidizing agent gas Q by converting valves to start the operation. Furthermore, the gas preheaters 1 and 2 are connected to another lamination 6 to raise its temperature. After that, by the exhaust gas of the lamination 4, a lamination 10 in the next stage is heated and started, and a lamination 15 is also heated and started by the exhaust gas of the lamination 6 in a same manner. Therefore, as well as a uniformed temperature rising can be realized by using gases, the temperatures of plural fuel cell laminations can be raised by a small energy, and the system can be started efficiently.  
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